

ABSTRACT OF THE DISCLOSURE

SHARED-CURRENT ELECTRONIC SYSTEMS

Shared-current electronic systems (10, 20, 26, 30, 38, 48, 66, 70, 82, 90, 96, 100, 104, 108, 118, and 122) include two or more solid-state electronic devices, such as a solid-state amplifying device Q1, a baseband processor 110, and a multiplier/upconverter 112, that are connected in dc series or dc series-parallel, and that either fixedly or variably share percentages of a dc supply voltage. Various embodiments produce separate rf outputs, variably shift the phase of a single rf output, variably shift rf power between/among rf outputs, or produce a frequency-compressed modulation. RF decoupling of the dc series-connected electronic devices comprises making an effective series resistance (ESR) of an rf decoupling capacitance lower than the ESR of a porcelain capacitor that resonates at the operating frequency of the electronic device that is being decoupled.